REMARKS

Claims 1-6 and 8 remain in the application. Claims 7 and 9-18 have been canceled. Claim 1 has been amended. Reconsideration of this application, as amended, is respectfully requested.

Claim 1 has been amended to incorporate the subject matter of claim 7 therein. Support for this amendment can be found at page 27, lines 18-20 of the specification and in claim 7 as originally filed. Claim 1 has been further amended to substitute "body part" for "part of an arm" and "part of said arm". Support for this amendment can be found at page 13, line 28 through page 14, line 2 of the specification. This latter amendment was made because, on account of the cancellation of claim 9-18, the particular body part suitable for carrying out the method claimed need not be limited to the arm for the purpose of addressing the prior art.

Claims 1-7 and 9-18 were rejected under 35 U. S. C. §103 (a) as being unpatentable over U. S. Patent No. 5,978,691 to Mills in view of U. S. Patent No. 5,028,787 to Rosenthal et al. This rejection is respectfully traversed for the following reasons.

Mills, U. S. Patent No. 5,978,691 (hereinafter "Mills"), discloses a method for facilitating the noninvasive determination of characteristics of subject matter and the environment in which said subject matter exists, the method comprising the steps of:

Emitting at least one wavelength of electromagnetic radiation applied to said subject matter

Detecting said wavelength after contact with said subject matter

Inducing a temperature change in said subject matter while emitting and detecting said radiation applied to said subject matter

Computing parameters based on information processed from the contact of said radiation at various temperature levels on said subject matter.

Rosenthal et al., U. S. Patent No. 5,028,787 (hereinafter "Rosenthal et al."), discloses that the crease of the elbow, the wrist, the back of the hand, the bridge of the nose, and the finger tip are alternate sites for performing blood measurements with near-IR light.

Neither Mills nor Rosenthal et al. discloses a method for the determination of a disease state in a human subject. Assuming that the data obtained in steps (a) and (b) can be obtained by the methods described in Mills or Rosenthal et al., neither Mills nor Rosenthal et al. discloses or suggests the steps of inserting the data so obtained into a mathematical relationship to calculate a mathematical output and then comparing the mathematical output with a "category selector" to determine a disease state of a human subject, wherein the disease state is selected from the group consisting of diabetic state, dermal disease state, neoplasmic disease state, and vascular disease state. The complete method of utilizing optical signals collected at a plurality of temperatures to determine the disease state of a human subject is described at page 19, line 24 through page 23, line 16 of the specification. The method utilizes a "category selector". As can be seen at page 20, lines 17-27 of the specification, the expression "category selector" involves a discriminant function D. The discriminant function D is a decision rule that can be used to categorize subjects in their respective categories. Neither Mills nor Rosenthal et al. discloses or suggests the use of a "category selector." Accordingly, neither Mills nor Rosenthal et al. discloses or suggests a method that utilizes steps (c) and (d) of claim 1. For this reason, it is submitted that the combination of Mills and Rosenthal et al. fails to render claim 1 obvious to one of ordinary skill in the art. Because claims 2-6 and 8 depend from claim 1, it is submitted that the combination of Mills and Rosenthal et al. fails to render claims 1-6 and 8 obvious to one of ordinary skill in the art.

Claim 8 was rejected under 35 U. S. C. §103 (a) as being unpatentable over U. S. Patent No. 5,978,691 to Mills in view of U. S. Patent No. 5,028,787 to Rosenthal et al. in further view of U. S. Patent No. 5,800,347 to Skates et al. This rejection is respectfully traversed for the following reasons.

Skates et al., U. S. Patent No. 5,800,347 (hereinafter "Skates et al."), discloses a method of assessing risk of an individual for a disease. A level of marker for the disease is detected, and the risk of disease is computed from a statistical analysis of the marker level distributions for tested normal and diseased populations, using multivariate distributions. The computed risk is compared to thresholds to triage the individual into a normal, borderline, or

elevated risk group, and a course of action based on the risk group is determined.

Claim 8 of this application recites a procedure for deriving the mathematical relationship recited in step (c) claim 1. As stated previously, neither Mills nor Rosenthal et al. discloses or suggests a "category selector." Accordingly, neither Mills nor Rosenthal et al. discloses or suggests a method that utilizes steps (c) and (d) of claim 1. Skates et al. discloses a method of **assessing the risk of an individual for a disease**. The method described in Skates et al. requires the detection of a level of marker for the disease. While one can argue that Skates et al. may be using some sort of "category selector", Skates et al. does not disclose or suggest a method of using sets of data to develop a mathematical relationship to determine at least one of diabetic state, dermal disease state, neoplasmic disease state, or vascular disease state. Accordingly, Skates et al. fails to remedy the deficiencies of Mills and Rosenthal et al., namely, the determination of at least one of the disease states listed in claim 1. Consequently, because claim 8 depends from claim 1, the combination of Skates et al., Mills, and Rosenthal et al. fails to render claim 8 obvious to one of ordinary skill in the art.

In view of the foregoing, it is submitted that claims 1-6 and 8 are in condition for allowance, and official Notice of Allowance is respectfully requested.

Respectfully submitted,
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